

Having thus described the invention, I claim:

1. An upright vacuum cleaner, comprising:

a floor nozzle having a suction inlet;

a handle;

a housing having a first portion connected to said floor nozzle and a

5 second portion connected to said handle, the housing defining a cavity and at least one chamber;

a dirt cup assembly releasably connected to said housing and at least partially received by said cavity, said dirt cup assembly defining a cyclonic airflow chamber and including a wall;

10 an inlet duct defined on said dirt cup assembly wall;

a filter assembly removably positioned in said dirt cup assembly; and

a motor assembly disposed in said at least one chamber defined by said housing.

2. The upright vacuum cleaner of claim 1, wherein said filter assembly comprises a filter cage and a filter media mounted on said filter cage.

3. The upright vacuum cleaner of claim 2, wherein said filter assembly includes a top wall connected to a proximal end of said filter cage, and wherein said top wall cooperates with at least one wall of said dirt cup to seal at least a portion of said cyclonic airflow chamber.

4. The upright vacuum cleaner of claim 2, wherein said filter assembly is concentrically positioned in said dirt cup assembly.

5. The upright vacuum cleaner of claim 4, wherein said dirt cup assembly comprises a support connected to a base wall, and wherein said filter assembly is mounted on said support.

6. The upright vacuum cleaner of claim 1, further comprising a latch assembly for selectively securing said dirt cup assembly to said housing.

7. The upright vacuum cleaner of claim 1, further comprising a ducting system located within said floor nozzle and said housing for fluidically connecting said suction inlet to said dirt cup inlet duct, whereby air is drawn in through said suction inlet, drawn through a pivot tube in said floor nozzle, a conduit in said housing, through said dirt cup inlet duct and cyclonically filtered in said dirt cup and expelled through an opening in a base of said dirt cup.

8. A stick vacuum cleaner, comprising:

a floor nozzle having a suction inlet;

a housing connected to said floor nozzle, the housing having a front panel and a rear panel, said housing including a cavity and at least one chamber spaced therefrom;

said front panel of said housing defining a first aperture that opens into said cavity;

said rear panel of said housing defining a second aperture that opens into said cavity, wherein said second aperture is smaller than said first aperture;

10 a dirt cup releasably mounted to said housing and at least partially received in said cavity, wherein the dirt cup extends into said first aperture and into said second aperture when mounted on said housing, said dirt cup being removable from said housing in a frontal direction; and

15 a motor assembly disposed in said at least one chamber defined by said housing.

9. The stick vacuum cleaner of claim 8, wherein said dirt cup comprises:

a front wall;

a rear wall;

a first side wall extending between said front and rear walls;

a second side wall extending between said front and rear walls;

5 a pair of wings extending respectively past said first and said second side walls adjacent said front wall, whereby at least a portion of said front wall remains substantially flush with said front portion of said housing when said dirt cup is mounted on said housing in a use position.

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10. The stick vacuum cleaner of claim 8, wherein said dirt cup rear wall defines a contoured portion; and

said housing second aperture cooperates with said contoured portion of said dirt cup when the dirt cup is mounted on said housing in a use position.

11. The stick vacuum cleaner of claim 8, wherein said dirt cup comprises a tangential inlet so that said dirt cup defines a cyclonic airflow chamber.

12. The stick vacuum cleaner of claim 11, further comprising a removable filter assembly positioned in said cyclonic airflow chamber.

13. The stick vacuum cleaner of claim 8, further comprising a latch assembly for selectively securing said dirt cup to said housing.

14. A stick vacuum cleaner, comprising:
a floor nozzle having a suction inlet;
a main handle;
a housing having a first portion connected to said floor nozzle and a second portion connected to said main handle, the housing defining a cavity and at least one chamber;

a dirt cup releasably connected to said housing and at least partially received by said cavity, wherein the dirt cup is movable in relation to said housing from a use position to an emptying position;

a dirt cup handle connected to said dirt cup assembly and spaced from said main handle, wherein the stick vacuum cleaner may be lifted by the dirt cup handle when the dirt cup is in the use position; and

a motor assembly disposed in said at least one chamber defined by said housing.

15. The stick vacuum cleaner of claim 14, wherein said dirt cup includes a tangential inlet so that said dirt cup defines a cyclonic airflow chamber.

16. The stick vacuum cleaner of claim 15, further comprising a removable filter assembly located in said cyclonic airflow chamber.

17. The stick vacuum cleaner of claim 16, wherein said dirt cup includes a base that defines an exhaust duct, and wherein said filter assembly and said exhaust duct are axially aligned.

18. The stick vacuum cleaner of claim 14, further comprising a secondary filter mounted in said housing between said dirt cup and said motor assembly.

19. A stick vacuum cleaner, comprising:

- a floor nozzle having a suction inlet;
- a housing connected to said floor nozzle;
- a dirt cup assembly releasably connected to said housing;
- said dirt cup assembly including a base and walls which cooperate to define a cavity;
- an inlet duct located on one of said base and walls of said dirt cup assembly;
- a filter support element mounted on one of said base and walls of said dirt cup assembly; and

a filter selectively mounted on said filter support element .

20. The stick vacuum cleaner of claim 19, wherein said filter support element is an integrally molded component of said dirt cup base.

21. The stick vacuum cleaner of claim 19, wherein said filter support element is an independent component connected to said dirt cup base.

22. The stick vacuum cleaner of claim 19, further comprising a motor and a secondary filter, wherein said secondary filter is mounted in said housing between said dirt cup assembly and said motor.

23. The stick vacuum cleaner of claim 19, wherein said dirt cup base defines an exhaust duct, and wherein said filter support element surrounds said exhaust duct and extends into said cavity.

24. The stick vacuum cleaner of claim 23, further comprising a motor/fan assembly having an inlet; and

wherein said exhaust duct and said motor/fan assembly inlet are aligned along a longitudinal axis.

25. The stick vacuum cleaner of claim 19, wherein said filter comprises a filter cage and a bottom support connected to a distal end of said filter cage, and wherein said bottom support cooperates with said filter support element to

selectively mount said filter to said dirt cup assembly.

26. The stick vacuum cleaner of claim 25, wherein at least one of said bottom support and said filter support element includes a sealing member, whereby a seal is formed between said bottom support and said filter support element by said sealing member.

27. A stick vacuum cleaner, comprising:
a floor nozzle having a suction inlet;
a housing connected to said floor nozzle, the housing defining a cavity and at least one chamber;

a dirt cup assembly releasably connected to said housing and at least partially received by said housing cavity, wherein said dirt cup assembly includes a front wall, a rear wall, a first side wall, a second side wall and a base wall, said walls being interconnected to define a dirt cup cavity;

a filter assembly mounted in said dirt cup cavity, said filter assembly including a top wall;

a gasket extending away from an upper surface of said filter assembly top wall;

a skirt extending away from a lower surface of said filter assembly top wall in a manner offset from said gasket, wherein at least one of said walls of said dirt cup assembly includes an upper portion having a projection, and wherein said filter assembly top wall, said gasket and said skirt cooperate with said dirt cup wall projection to form a labyrinth seal; and

a motor assembly disposed in said at least one chamber defined by said housing.

28. The stick vacuum cleaner of claim 27, wherein said labyrinth seal encloses at least a portion of said dirt cup cavity.

29. The stick vacuum cleaner of claim 27, wherein the filter assembly is removably mounted in said dirt cup cavity.

30. The stick vacuum cleaner of claim 27, wherein said filter assembly is concentrically positioned in said dirt cup cavity.

31. The stick vacuum cleaner of claim 27, wherein said dirt cup base wall defines an exhaust duct, and wherein said filter assembly and said exhaust duct are aligned.

32. An upright vacuum cleaner, comprising:
a floor nozzle having a suction inlet;
a housing having a lower portion connected to said floor nozzle and an upper portion mounted on said lower portion;

5 said lower portion of said housing defining at least one chamber and an air conduit, said air conduit being in fluid connection with said suction inlet;
said upper portion of said housing defining a first cavity;
a dirt cup assembly releasably connected to said housing and at least

partially received by said first cavity;

10 said dirt cup assembly including at least one exterior wall and defining
a second cavity;

 an inlet duct located on said dirt cup assembly exterior wall in fluid
communication with said air conduit when said dirt cup assembly is received in said
first cavity, whereby air is drawn in through said suction inlet, through said air
15 conduit, through said inlet duct and into said second cavity; and

 said dirt cup assembly includes a base wall that defines an exhaust
port, through which the air in the second cavity exits the dirt cup.

33. The upright vacuum cleaner of claim 32, further comprising a
motor assembly disposed in said at least one chamber defined by said housing; and

 wherein said dirt cup assembly and said at least one chamber are in
fluid communication such that air exiting said dirt cup assembly through said base
5 wall exhaust port passes into said at least one chamber.

34. The upright vacuum cleaner of claim 33, further comprising a
secondary filter mounted to said housing between said base wall exhaust port and
said motor assembly.

35. An upright vacuum cleaner, comprising:
 a housing comprising a floor nozzle and defining a first cavity and at
least one chamber;

 a dirt cup releasably connected to said housing and at least partially

5 received in said first cavity, said dirt cup defining a second cavity;
said dirt cup including a conversion port for above-the-floor cleaning;
and
a motor assembly disposed in said at least one chamber defined by
said housing.

36. The upright vacuum cleaner of claim 35, wherein said dirt cup
includes an inlet duct and said conversion port is defined in said inlet duct.

37. The upright vacuum cleaner of claim 36, wherein said inlet duct
is located on a front wall of said dirt cup.

38. The upright vacuum cleaner of claim 35, wherein said
conversion port is defined in a rear wall of said dirt cup.

39. The upright vacuum cleaner of claim 35, wherein said dirt cup
includes a tangential inlet so that said second cavity functions as a cyclonic airflow
chamber.

40. The upright vacuum cleaner of claim 35, further comprising:
a hose including a conversion adapter having a distal end;
said conversion adapter engaging said conversion port in an above-
the-floor cleaning mode, whereby the distal end of said adapter is in fluid
5 communication with said second cavity.

41. The upright vacuum cleaner of claim 40, wherein said adapter includes a shoulder having a larger circumference than is a circumference of an orifice defined by said conversion port.

42. The upright vacuum cleaner of claim 40, further comprising a door disposed on said conversion port, whereby in a floor cleaning mode said door substantially seals an orifice defined by said conversion port.

43. The upright vacuum cleaner of claim 42, wherein said door is pivotable about a hinge.